

Amendments to the Specification:

Please amend the specification as follows:

- On page 2, immediately after the first full paragraph (beginning on line 6 and ending on line 9), please insert the following:

BRIEF DESCRIPTION OF THE DRAWINGS

There are, moreover, various possible ways of advantageously configuring and developing the teaching of the present invention, as may be seen in the figures.

FIG. 1 shows a diagrammatic representation of a confocal scanning microscope in which the method according to the invention is used.

FIG. 2 shows a schematic representation of a modulation means and an optical structure.

FIG. 3 shows a schematic representation of a control element and a modulation means.

FIG. 4 shows a schematic representation of a laser light source and a modulation means.

FIG. 5 shows a schematic representation of a modulation means and a pump current source.

FIG. 6 shows a schematic representation of a modulation means and a laser light source emitting a laser beam.

FIG. 7 shows a schematic representation of a laser resonator, a modulation means, and a control element.

FIG. 8 shows another schematic representation of a laser resonator, a modulation means, and a control element.

FIG. 9 shows a schematic representation of a control element and an AOTF.

FIG. 10 shows a schematic representation of a control element and an AOBS.

FIG. 11 shows a modulation means and a casing.

- On page 2, line 10, please amend the specification as follows:

SUMMARY OF THE INVENTION DETAILED DESCRIPTION OF THE INVENTION

- On page 2, please amend the paragraph beginning on line 16 and ending on line 21 as follows:

The method according to the invention of the generic type achieves the above object ~~by the features of Patent claim 1~~. According thereto, such a method is characterized in that the phase angle of the light field is varied by a ~~modulation means~~ modulator in such a way that interference phenomena do not occur in the optical beam path, or occur only to an undetectable extent, within a predeterminable time interval.

- On page 2, please add the following paragraphs immediately after the paragraph beginning on line 16 and ending on line 21:

Fig. 1 shows a schematic representation of a confocal scanning microscope 1, in which an object is illuminated with light 2 from a laser light source 3.

According to the invention, the phase angle of the light field is varied by a ~~modulation means~~ modulator 4 designed as an EOM, in such a way that interference phenomena do not occur in the optical beam path, or occur only to an undetectable extent, within a predeterminable time interval.

The EOM 4 is arranged directly downstream of the laser light source 3. A stochastic noise signal 5 is applied to the EOM 4, so that laser light 2 passing through the EOM 4 has a broadened spectral linewidth after its transmission and, accordingly, is injected into the confocal scanning microscope 1 as light 6 with a smaller coherence length. A noise generator 7 is used to produce the noise signal 5.

Via the connection 8, the modulation of the EOM 4 is synchronized with the scanning process of the confocal scanning microscope 1.

- Please amend the paragraph spanning lines 12-20 as follows:

In a first variant, an EOM (electro-optical ~~isic~~-modulator) is employed as the modulation means. This EOM is arranged directly downstream of the laser light source, so that the laser radiation emitted by the laser light source passes through the EOM. The EOM can vary the phase angle of the light field in such a way that broadening of the spectral linewidth of the laser radiation is thereby achieved. In this case, a noise signal, a periodic signal or a stochastic signal could be applied to the EOM, so that spectral components are superimposed on the laser light and so that the linewidth of the laser radiation is increased to the linewidth of the superimposed signal.

- Please amend the paragraph spanning pages 3 and 4 as follows:

In a second variant, a mirror, a lens or a beam splitter is used as the modulation means 4. This modulation means 4 is also arranged downstream of the laser light source. It is mounted in such a way that it also vibrates or oscillates as a result of vibrations or oscillations of the optical structure 12 or of the casing 14, as shown in FIGS. 2 and 11. In the simplest case, this could involve a lens which is merely placed, but not fixed, in a lens frame. The slight vibrations or oscillations of the device, which are in any case induced, for example, by fans, cause the lens itself to oscillate. The mirror, the lens or the beam splitter could also be moved

with the aid of a control element 13, as shown in FIG. 3. The control element could, for example, be a piezo element to which a corresponding control signal is applied.

- Please amend the second full paragraph on page 4 (spanning lines 11-22) as follows:

In a third variant, provision is made for the modulation means 4 to influence the laser light source 3. For instance, a modulation means 4 could switch the laser light source on and off, as can be seen by way of example in Fig. 4. This process of switching on and off would need to take place at least once within the predeterminable time interval. The switching on and off could be performed by corresponding modulation of the pump current 15 of the laser, as is shown schematically in Fig. 5, specifically, for example, if the modulation means 4 periodically interrupts the pump current 15. More generally, provision could be made for the modulation means 4 to influence the pump current 15 of the laser. In this case, for example, the pump current 15 of a diode laser could be sinusoidally modulated so that the light power emitted by the diode laser is also periodically modified. In this way, it could be possible to vary the wavelength of the light emitted by the diode laser, which should be taken into account in a practical application.

- Please amend the third full paragraph on page 4 (spanning lines 23-25) as follows:

As an alternative to this, provision is made to influence the intensity of the laser from the light source 3, as is shown in Fig. 6. This could be done using conventional methods for influencing intensity in laser light sources, for example by Q-switching or cavity dumping.

- Please amend the paragraph spanning pages 4-5 as follows:

Furthermore, the modulation means could influence ~~the a~~ laser resonator 16 or the optical medium 17 of the laser, as shown in Fig. 7. In practical terms, provision could be made for

the modulation means 4 to be configured as a piezo element which moves and/or deforms at least one component of the laser resonator 16 and/or the optical medium 17, **as shown in Fig. 8.** In practical terms, the piezo element could be connected directly or indirectly to the optical medium 17, for example to the laser crystal. Using corresponding circuit interconnection of the piezo element, its extension is then transmitted to the optical medium 17 and the laser is hence perturbed from its normal operation.

- Please amend the second full paragraph on page 6 (spanning lines 7-16) as follows:

A change in the wavelength of ~~the~~ **incoming** laser light 19 due to the modulation is advantageously taken into account by the control unit 13 of an AOTF (acousto-optical tunable filter) 18 or AOBS (acousto-optical beam splitter) 21, **as shown in Figs. 9 and 10, respectively.** This component is provided for injecting the laser light 20 into the optical structure, or the confocal scanning microscope. The injection by an AOTF 18 or AOBS 21 is in this case normally adjusted only for a limited wavelength range of the laser light so that, in the event of a change in the wavelength of the laser light due to the modulation, the control unit 13 of the AOTF 18 or AOBS 21 should be changed correspondingly so as not to reduce the injection efficiency.

- On page 6, line 20, please delete the words "BRIEF DESCRIPTION OF THE DRAWING".
- Please delete the paragraph spanning pages 6 and 7.
- Please delete the paragraph on page 7, at lines 3-4.
- On page 7, line 5, please delete the words "DETAILED DESCRIPTION OF THE INVENTION".
- Please delete the paragraph on page 7, lines 6-7.

- Please delete the paragraph on page 7, lines 8-11.
- Please delete the paragraph on page 7, lines 12-17.
- Please delete the paragraph on page 7, lines 18-19.
- Please delete the paragraphs on page 8 (the parts list).